ABSTRACT

A molded polyurethane body is free of by-products capable of migrating and has high light fastness as well as improved temperature stability. The molded polyurethane body is obtainable by reacting:

a) one or more aliphatic polyols having a molecular weight of 450 to 6000 g/mol and a hydroxyl value of 10 to 235;

b) with aliphatic and/or cycloaliphatic diisocyanates in an equivalent ratio of diisocyanate to polyol of 1.2 : 1.0 to 16.0 : 1.0;

c) with diols as chain lengthening agents having a molecular weight of 60 to 450 g/mol, the NCO index formed from the quotient, which is multiplied by 100, of the equivalent ratio of isocyanate groups to the sum of the hydroxyl groups of polyol and chain lengthening agents lying within a range of 90 to 105; and

d) with an at least bifunctional reaction component, which is suitable for subsequent cross-linking and which reacts with the terminal hydroxyl groups of the polyurethane chain as well as with the acidic hydrogen atoms of the urethane groups and leads to branched-chain reactions, the thermoplastic polyurethane formed by conversion from the components a) through c) in a first step being homogenously mixed in a second step with 0.2 to 25 parts by weight of the component d) with respect to 100 parts by weight of the thermoplastic polyurethane, formed into a molded body, and subsequently cross-linked at temperatures from 80 to 240°C.